

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/014207

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> C12N15/09, A61K45/00, A61P1/16, A61P11/06, A61P31/12,  
A61P31/14, A61P35/00, A61P37/04, A61P37/06, A61P37/08,  
C07K14/705, C07K16/28, C12N1/15, C12N1/19, C12N1/21, C12N5/00,

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> C12N15/09, A61K45/00, C07K14/705, C07K16/28, C12N1/15, C12N1/19,  
C12N1/21, C12N5/00, C12P21/02, C12Q1/02, G01N33/15, G01N33/50

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CA/MEDLINE/BIOSIS/EMBASE/BIOTECHABS/WPIDS (STN),  
GenBank/EMBL/DDBJ/GeneSeq, SwissProt/PIR/GeneSeq

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1201681 A (Millennium Pharmaceuticals, Inc.), 02 May, 2002 (02.05.02), Full text; Seq. ID. Nos. 6, 34 & US 2003175890 A	1-10, 14, 19, 20
P, X	WO 03/89624 A (UAB RESEARCH FOUNDATION), 30 October, 2003 (30.10.03), Full text; Seq. ID. Nos. 27, 28 (Family: none)	1-7, 19, 20

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
15 October, 2004 (15.10.04)

Date of mailing of the international search report  
02 November, 2004 (02.11.04)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/014207

**Box No. I**      **Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)**

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:

a. type of material



a sequence listing



table(s) related to the sequence listing

b. format of material



in written format



in computer readable form

c. time of filing/furnishing



contained in the international application as filed



filed together with the international application in computer readable form



furnished subsequently to this Authority for the purposes of search

2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments:

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/JP2004/014207

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 11-13, 15-18  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
Concerning the ligand, the agonist and the antagonist according to claims 11 to 13 and 15 to 18, it is impossible to find anything that is supported by the description in the meaning within Patent Cooperation Treaty Article 6 and disclosed in the description in (continued to extra sheet)
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

A protein as set forth in claim 1 comprising an amino acid sequence represented by SEQ ID NO:2 or 4 and the protein as set forth in claim 1 comprising the amino acid sequence represented by SEQ ID NO:6 have no novel chemical structure in common but are common to each other exclusively in being an NK cell receptor protein. However, NK cell receptor proteins had been publicly known before the priority date of the present case as reported in No.2003-527105 Published Japanese translation of PCT international publication. Thus, being an NK cell receptor protein cannot be considered as a special technical matter as defined in Patent Cooperation Treaty Rule 13.3.

Therefore, it does not appear that there (continued to extra sheet)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/JP2004/014207

Continuation of A. CLASSIFICATION OF SUBJECT MATTER  
(International Patent Classification (IPC))

Int.Cl<sup>7</sup> C21P21/02, C12Q1/02, G01N33/15, G01N33/50

(According to International Patent Classification (IPC) or to both national classification and IPC)

Continuation of Box No.II-2 of continuation of first sheet(2)

the meaning within Patent Corporation Treaty Article 5.

Continuation of Box No.III of continuation of first sheet(2)

is a technical relationship between the inventions of the parts relating to a protein as set forth in claim 1 comprising an amino acid sequence represented by SEQ ID NO:2 or 4 and the inventions of the parts relating to the protein as set forth in claim 1 comprising the amino acid sequence represented by SEQ ID NO:6, among the inventions as set forth in claims 1 to 20, involving one or more of the same or corresponding special technical features. Thus, these groups of inventions are not considered as being so linked as to form a single general inventive concept.

Such being the case, the present international application does not comply with the requirement of unity of invention.